

DaimlerChrysler AG

Patent claims

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1. A safety device for a vehicle (2), in particular  
for a motor vehicle, for reducing the risk of  
injury to a vehicle occupant in the event of  
10 lateral accidents collisions, having at least one  
cushion element (32, 34) which is arranged on the  
vehicle (2) laterally adjacent to an occupant  
position and can be moved by an actuating device  
(40) from a rest position into a deployed position  
15 in the direction of the occupant position,  
characterized  
in that the actuating device (40) can be driven by  
a vehicle-mounted drive (46).
- 20 2. The safety device as claimed in claim 1,  
characterized  
in that the cushion element (32, 34) is arranged  
in or on a door (8) or in or on a body pillar (6)  
of the vehicle (2).
- 25 3. The safety device as claimed in claim 1 or 2,  
characterized  
in that cushion elements (32, 34) and/or  
additional foam elements (18, 26, 28, 30) a  
30 plurality of which are arranged in series are  
provided.
4. The safety device as claimed in at least one of  
the preceding claims,  
35 characterized  
in that the cushion elements (32, 34) and/or the  
foam elements (18, 26, 28, 30) are arranged such

that they can be displaced with respect to one another.

- 5        5.    The safety device as claimed in at least one of  
the preceding claims,  
characterized  
in that the cushion elements (32, 34) and/or the  
foam elements (18, 26, 28, 30) are at least  
indirectly guided by linear guides (60).
- 10       6.    The safety device as claimed in at least one of  
the preceding claims,  
characterized  
in that the cushion element (32, 34) can be locked  
15       in a deployed position.
- 20       7.    The safety device as claimed in at least one of  
the preceding claims,  
characterized  
in that the vehicle-mounted drive (46) is embodied  
as an electric motor.
- 25       8.    The safety device as claimed in at least one of  
the preceding claims,  
characterized  
in that the actuating device (40) has a traction  
means (42) which is embodied as a cable or belt.
- 30       9.    The safety device as claimed in claim 8,  
characterized  
in that the traction means (42) is stored, at  
least in sections, in or on a store (44).
- 35       10.   The safety device as claimed in claim 9,  
characterized  
in that the traction means (42) can be wound in or  
onto the store (44) and in that the store (44) can

be driven by the vehicle-mounted drive (46).

11. The safety device as claimed in at least one of  
the preceding claims,  
5 characterized  
in that an auxiliary drive is provided for moving  
the cushion element (32, 34) in the direction of  
the occupant position.
- 10 12. The safety device as claimed in claim 11,  
characterized  
in that the auxiliary drive is formed by a spring  
store and/or pyrotechnic elements.
- 15 13. The safety device as claimed in at least one of  
the preceding claims,  
characterized  
in that the vehicle-mounted drive (46) and/or the  
auxiliary drive are/is coupled to sensors for  
20 detecting the vehicle state and/or the state of  
the vehicle's surroundings.
14. The safety device as claimed in at least one of  
the preceding claims,  
25 characterized  
in that at least one return element (58) is  
provided for moving the at least one cushion  
element from a deployed position into the rest  
position.
- 30 15. The safety device as claimed in claim 14,  
characterized  
in that the return element (58) is formed by at  
least one tension spring.
- 35 16. Method for operating a safety device, in  
particular as claimed in one of the preceding

claims, in particular for a motor vehicle for  
reducing the risk of injury to a vehicle occupant  
in the event of lateral impact accidents, having  
at least one cushion element (32, 34) which is  
5 arranged on the vehicle (2) laterally adjacent to  
an occupant position and can be moved by an  
actuating device (40) from a rest position into a  
deployed position in the direction of the occupant  
position,  
10 characterized  
in that the actuating device (40) is driven by a  
vehicle-mounted drive (46).